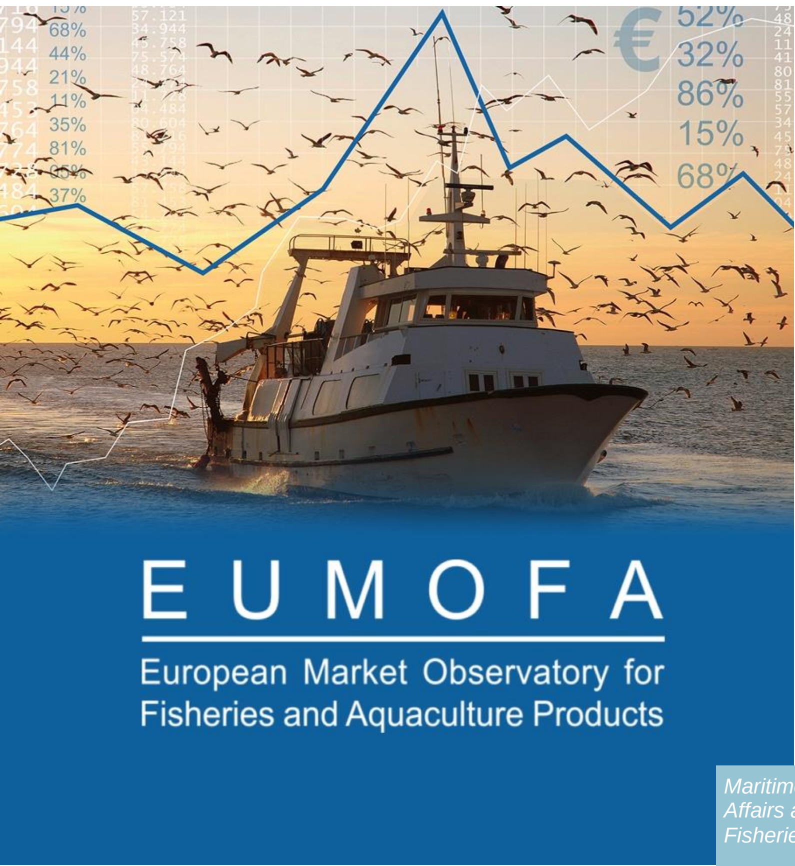
European Commission

CASE STUDY

FRESH COD IN THE UNITED KINGDOM

PRICE STRUCTURE IN THE SUPPLY CHAIN



Maritimes Affairs and Fisheries

LAST UPDATE : JUNE 2017

WWW.EUMOFA.EU

Table of content

0 Summary

- In 2014 the world catch of Atlantic cod reached its highest level in ten years (1,37 million tonnes) and decreased by 5% in 2015 (1,30 million tonnes).
- The EU-28 production reached 147,158 tonnes in 2015. UK is the main supplier of Atlantic cod with 28 784 tonnes captured in 2015 (20% of the EU catches). UK is followed by Denmark (18%), Spain (14%), Poland (13%), Germany (11%) and France (9%). These six Member States gather 83% of the EU supplies in 2015.
- Most European markets for Atlantic cod are built on a strong dependency on imports as the main suppliers are extra-EU countries (Norway, Russia and Iceland). Statistically, Denmark appears as the largest European trader for fresh Atlantic cod. But Denmark is a 'hub' for Norwegian fish.
- Generally speaking UK is dependent on international sources for seafood supply. Cod is with haddock the key whitefish species for the UK market. Iceland represents a key source of supply for both cod and haddock into the UK. In 2015, UK imported 108,000 t of cod and exported 12,460 t.
- Grimsby is one of the 5 main auction markets in UK. The four other ones are: Peterhead, Brixham, Plymouth and Newlyn. Unlike the other four auction markets, Grimsby is heavily dependent on supplies from Iceland, Norway, Faroe Islands and Scotland.
- Most of the volumes landed in Peterhead are captured in the North Sea and West of Scotland; whereas Grimsby is the main market for imported cod. The price of cod landed in Peterhead is decreasing since 2011 to reach 1.90 GBP/kg (2.61 EUR/kg) in 2015.
- The main segmentation of the market is based on the size of the fish. Cods can weight from less than 1 kg to 10 to 12 kg. Fish are graded under 6 categories from 1 (for the largest ones) to 6 (for the smallest ones).
- In 2015, the average price of fresh cod imported from Iceland in Grimsby was 2.25 GBP/kg (3.10 EUR/kg) and the average retail price of fresh natural cod was 20.7 GBP/kg (28.5 EUR/kg).
- Regarding the price structure in the supply chain for the fresh cod fillet:
    - The filleting is a key step of the process as filleting losses are estimated to account for 45% from the whole fresh cod (gutted, head-on).
    - The ex-factory price is estimated at 46% of the retail price. The main costs are: processing, packaging, ice, labelling, transport and processor's margin.
    - 54% of the retail price is the retailer costs and margin.

1 TASK REMINDER – Scope and content

1.1 Case study scope

This case study is an update of the 2012 one. Some few changes can be underlined:

- *UK is still the main EU supplier of fresh cod but it is the second largest EU market after France (it was the first one in 2012).*
- *Norway and Iceland are not anymore the two main suppliers of fresh cod for the EU market. Their share decreased and supplies are also coming from Denmark, Sweden, Netherlands and UK.*
- *On the Grimsby market, supplies origins have diversified with more cod coming from Norway and Ireland and less from Faroe Islands.*
- *Prices along the supply chain remain stable. But the retail price indicated in the first case study (9.70 GBP/kg) was an average of all kind of processed fresh cod which is not the case for this case study as it has been chosen to analyse the price structure of the "fresh natural cod" which is more expensive (18.9 GBP/kg).*

Reminder

The case study aims at illustrating how to concretely analyze price and value structure in seafood supply, using the European Observatory datasets (prices at different levels of the chain) and complementary tools and data (interviews with experts and key actors in the supply chain).

The analysis is focused on UK national market (the most, or one of the most important for the considered product), which means that analysis was developed in the most possible detailed way only for this country. This led to organize specific data collection and physical missions, in-depth interviews and information exchange with key actors of those markets.

The rationale for choosing fresh cod to analyze price structure and distribution of value in the UK is described in the table below.

Products	Origin	Characteristics	Market and price drivers
Fresh cod fillets in the UK national market	Raw material : Iceland, Norway, Russia, EU Processed products : Natural fillets (Iceland)	Highest TAC (Total Allowable Catches) of the EU (28,500 t in 2015). Most of the fresh raw material is imported from Iceland. Uncertainties linked to Brexit.	Strong dependence on international (EU and others) sources for seafood supply. Cod and haddock are key whitefish species for the UK market. Intra-EU market and competition (FR, ES) Currency rates (EUR/GBP)

The study focuses on the most important market: i.e. United-Kingdom, which means that analysis are developed in the most possible detailed way only for this country;

An overview of available information and preliminary analysis is proposed for the other relevant markets and a specific focus is made on Spain and France.

Species –Products	Main MS (focus)	other MS (overview)
Fresh cod (fillets)	United-Kingdom	Spain, France

1.2 State and content of the document

The methodology proposed, and agreed, for developing case studies on price structure in EU supply chains for fisheries and aquaculture products involves two main complementary tasks:

- First, mobilizing the maximum of available data and statistics and developing specific investigations (such as group analysis for establishing economic performance of key actors of the supply chains);
- Second, conducting a limited number of interviews with experts and stakeholders (fresh cod importers, processors, retailers), in the objective of getting qualitative comments on structured data produced in task 1, and for collecting complementary information on standard costs and margins.

Consequently, the present document is a structured presentation of the quantitative information available on cod production, international trade, market, consumption and price and margin analysis.

The key elements of analysis for each chapter, organized on a synthetic way, with specific consideration on price structure and distribution of value in the chains.

2 DESCRIPTION OF THE PRODUCT(s) AND MARKET(s)

2.1 Fresh cod products

2.1.1 Name, presentation, place in the nomenclature

The case study focuses on fresh cod fillets.

Main product

Name: Atlantic cod (*Gadus morhua*)

Presentation and conversion to live fish equivalent:

Table 1 - Estimated yield and official Norwegian conversion rates

	Yield	Conversion rates
Live whole fish	100%	1,00
Gutted, head on	85%	1,18
Gutted, head off	67%	1,50
Fillet	35%	2,85

Sources:
EUMOFA, phase 2 Final report, Annex V “conversion factors”
http://www.eumofa.eu/web/eumofa/supply-balance-and-other-methodologies

Related codes

Atlantic cod is differentiated in the COMEXT nomenclature for the whole fish (fresh and frozen) but not for fillets.

For fresh fillets, Atlantic cod is mixed with Greenland cod (*Gadus ogac*), Pacific cod (*Gadus macrocephalus*) and Polar cod (*Boreogadus saida*).

For frozen fillets, only Pacific cod is differentiated. Atlantic cod is mixed with Greenland cod and Polar cod.

<u>Whole fish</u>:

- Fresh or chilled cod (whole)
  - *Gadus morhua*: 03025110
  - *Gadus ogac, gadus macrocephalus*: 03025190
- Frozen cod (whole)
  - *Gadus morhua*: 03036310
  - *Gadus ogac*: 03036330
  - *Gadus macrocephalus*: 03036390

<u>Fillets:</u>

- Fresh or chilled cod (fillets)
  - «*Gadus morhua, Gadus ogac, Gadus macrocephalus* » and fillets of fish of the species « *Boreogadus saida* » : 03044410

We also have a look and compare the fresh cod fillets to the frozen ones:

- Frozen cod (fillets)
  - *Gadus macrocephalus*: 03047110
  - «*Gadus morhua, Gadus ogac*» and fillets of fish of the species « *Boreogadus saida* » : 03047190

COMEXT data show that the part of cods other than Atlantic cod in imports is quite low: in 2015 the UK imported 10.430 t of fresh cod (whole), out of which 10.190 t of Atlantic cod (98%). Import price of Atlantic cod (3,36 EUR/kg) is far above the price of other cods (2,35 EUR/kg).

2.1.2 Production and availability of fresh cod

Key analysis:

- In 2014 the world catch of Atlantic cod reached its highest level in ten years (1,37 million tonnes) and decreased by 5% in 2015 (1,30 million tonnes).
- The main suppliers are Norway (32%), Russia (30%) and Iceland (19%).
- EU-28 production has been on a positive trend until 2012 (+19% between 2005 and 2012) then started to decrease (-6% between 2012 and 2014) to reach around 140,000 tonnes in 2014 (the same level as in 2010) and is on a decrease trend since 2015.
- The share of UK in the EU-28 catches of Atlantic cod was stable between 2005 and 2012 (16 to 18%) then increased between 2012 and 2014 to reach 22% and was back to 20% in 2015.

Figure 1 – World capture of Atlantic cod (tonnes)

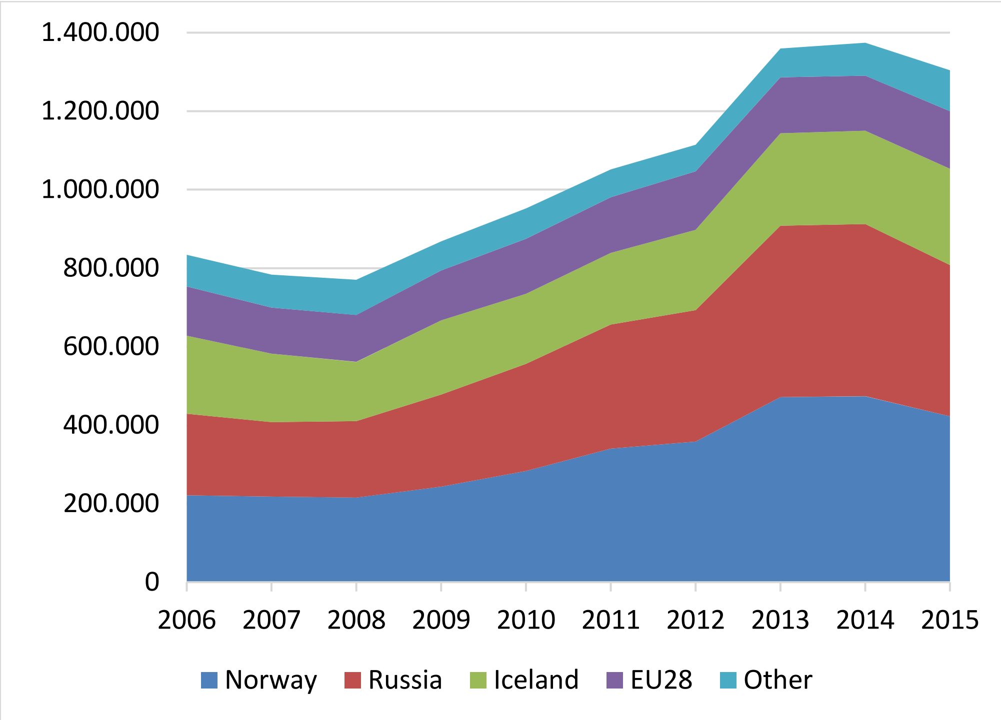


Table 2 – World catch of Atlantic cod (tonnes)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
World total	**834 412**	**783 553**	**770 503**	**868 049**	**951 933**	**1 051 545**	**1 114 401**	**1 359 399**	**1 373 460**	**1 304 433**
Norway	221 299	217 789	215 443	243 660	283 482	340 167	357 951	471 316	473 570	422 267
Russia	207 530	189 913	194 610	234 065	272 772	316 263	334 729	436 466	438 047	386 077
Iceland	199 375	174 436	151 397	188 976	178 599	182 356	204 645	236 051	237 756	244 554
EU28	125 236	117 467	119 029	127 190	139 981	142 197	149 656	142 081	140 257	147 158
Others	80 972	83 948	90 024	74 158	77 099	70 562	67 420	73 485	83 830	104 377
UK	20 841	19 332	19 336	22 515	25 753	23 186	26 449	29 468	30 608	28 784
% UK in EU28	17%	16%	16%	18%	18%	16%	18%	21%	22%	20%

Sources: FAO - Fisheries and Aquaculture Information and Statistics Service – Global capture of Atlantic cod.

Within the EU-28, UK is the main supplier of Atlantic cod with 28 784 tonnes captured in 2015 (20% of the EU catches). UK is followed by Denmark (18%), Spain (14%), Poland (13%), Germany (11%) and France (9%). These six Member States gather 83% of the EU supplies in 2015.

Table 3 – European catch of Atlantic cod (tonnes)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
EU 28	**125 405**	**125 236**	**117 467**	**119 029**	**127 190**	**139 981**	**142 197**	**149 656**	**142 081**	**140 257**	**147.158**
UK	20 001	20 841	19 332	19 336	22 515	25 753	23 186	26 449	29 468	30 608	28.784
Denmark	28 946	29 586	24 494	23 543	23 695	26 701	26 849	28 555	20 426	22 254	26.230
Spain	9 795	556	5 022	9 915	11 824	14 088	15 420	12 781	17 602	18 697	20.824
Poland	13 846	15 947	11 785	11 254	12 364	14 841	15 631	18 552	19 104	18 252	18.475
Germany	18 106	17 459	16 819	17 391	18 629	19 477	16 383	18 882	14 537	15 221	15.573
France	5 560	8 004	8 363	7 339	4 993	5 298	10 227	9 259	13 156	12 234	12.635
Others	29 151	32 843	31 652	30 251	33 170	33 823	34 501	35 178	27 788	22 991	24.637

Sources:
FAO - Fisheries and Aquaculture Information and Statistics Service – Global capture of Atlantic cod.

The EU market for cod is supplied almost exclusively with wild cod. Aquaculture provides only 3 310 tonnes, coming mainly from Norway which production has fallen sharply in 2012 (-53%). Cod farming has been severely reduced since 2010, as the aquaculture for this species proved to be unprofitable due to availability of wild cod at fair prices.

The only EU cod farming company, based in UK, went bankrupt in 2008.

Table 4 – Production of farmed Atlantic cod (tonnes)

Country	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
United-Kingdom	158	543	1 111	1 822	0	0	0	0	0	0
Iceland	1 050	1 412	1 467	1 502	1 805	1 317	877	893	482	310
Norway	7 409	11 087	11 104	18 052	20 924	25 000	17 000	8 000	3 000	3 000
Total	**8 617**	**13 042**	**13 682**	**21 376**	**22 729**	**26 317**	**17 877**	**8 893**	**3 482**	**3 310**

Sources:
FEAP – European Aquaculture Production report 2005 – 2014
http://www.feap.info/shortcut.asp?FILE=1402

3 THE EU MARKETS FOR ATLANTIC COD

3.1 Structure of the EU markets

3.1.1 Apparent market by Member State

The UE market for fresh Atlantic cod is estimated 302,744 tonnes (equivalent live weight) in 2014, in EU-28. The UK is the second largest market (22% of total EU apparent market), after France (28%), and before Spain and Poland. The British production is more than twice higher than the French one; but France imports a significant volume of fresh Atlantic cod and exports less than UK.

These four main countries account for 71% in the global EU market (in volume).

Table 5 – Apparent market for fresh Atlantic cod in the EU in 2014 (t equivalent live weight)

Member States	Production (live weight)	Import (live weight)	Export (live weight)	Apparent market (live weight)
France	12 234	74 675	3 040	83 869
United-Kingdom	**30 608**	**44 482**	**9 730**	**65 360**
Spain	18 697	21 806	7 002	33 501
Poland	18 252	24 277	11 118	31 411
Germany	15 221	11 546	11 149	15 618
Sweden	6 926	41 299	34 437	13 788
Others	38 319	143 685	122 807	59 197
TOTAL EU-28	**140 257**	**361 770**	**199 283**	**302 744**

Sources:
FAO - Fisheries and Aquaculture Information and Statistics Service – Global capture of Atlantic cod COMEXT – Import and export of whole fresh Atlantic cod (CN code 03 02 51 10) and fresh cod fillets (CN code O3 04 44 10) Apparent domestic market for each Member State is calculated in live weight as follows : production – export + import; the following conversion factors have been used to calculate imports and exports in equivalent live weight : 1,34 for fresh whole (CN code 03 02 51 10) and 2,85 for fresh fillets (CN code O3 04 44 10), according to Annex V "conversion factors" of EUMOFA Phase 2 Final report.

3.1.2 Supply of the main EU markets for fresh cod

Most European markets for Atlantic cod are built on a strong dependency on imports as the main suppliers are extra-EU countries (Norway, Russia and Iceland).

Three of the big 4 EU national markets are covering about half of their fresh market needs with their own production. France is the only large market which relies almost exclusively (for 89%) on imports.

Denmark is the largest European trader of fresh Atlantic cod (see figures below). It is the main importer (23% of European imports), followed by France (19%) and UK (13%). It is also the main EU supplier of the EU market after Norway. Norway, Denmark and Iceland are the three main suppliers of fresh cod imported by EU-28 (64% of the total fresh cod imported).

Nevertheless, Denmark is statistically the largest EU trader of cod but the reason of this first rank is that Denmark is a 'hub' for Norwegian fish: the vast majority is bought in Norway, for example, by British traders, but comes through Denmark.

Figure 2 – Main European importers for Fresh cod (2015 - live weight)

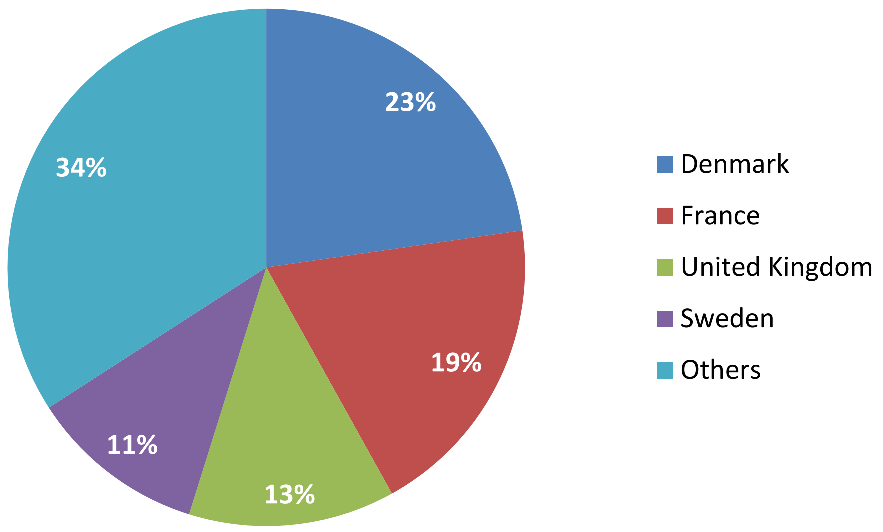
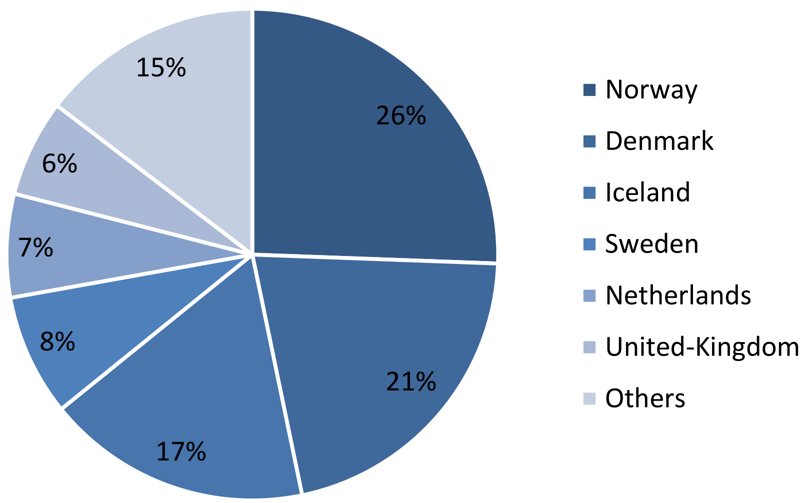


Figure 3 – Main intra and extra EU suppliers for the Fresh cod (2015 - live weight)



Sources:
Elaboration from COMEXT – Fresh Atlantic cod (whole + fillets) - Data of volume – 2015.

3.1.3 Main exporting countries within the EU

In 2015, Denmark exports half of the fresh cod exported by the EU Member states, ahead of Sweden, Poland and Germany.

The United Kingdom is the fifth largest exporter (4% of the total EU-28 exports).

These exports are mainly intra-EU exports going to France, United-Kingdom, Spain, Poland, Netherlands and Germany.

Figure 4 – The main European exporters of fresh cod (equivalent live weight) in 2015

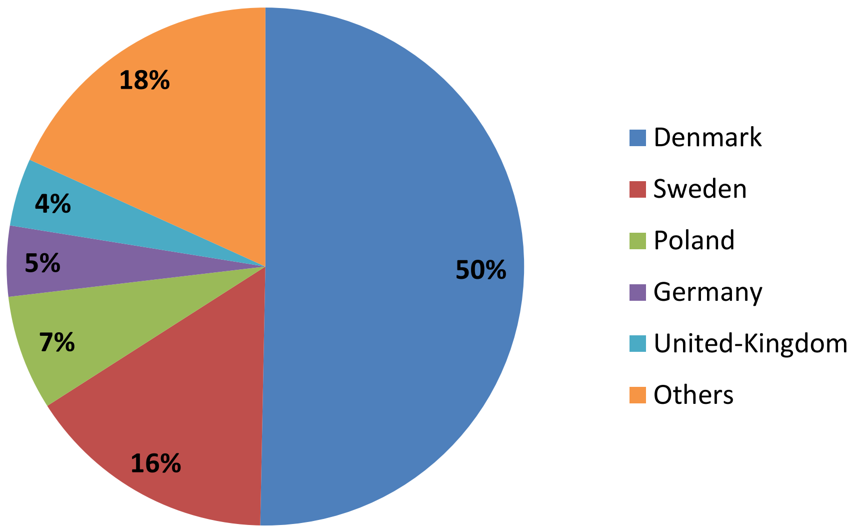


Table 6 – Main EU exporters of fresh cod (equivalent live weight) in 2015

Member States	Export (Live weight)
Denmark	102 899
Sweden	31 992
Germany	14 667
Poland	9 019
United-Kingdom	8 647
Others	37 286
TOTAL EU-28	**204 510**

<u>**Sources:**</u>
Elaboration from COMEXT – Fresh Atlantic cod, whole and fillets (CN codes 03 02 51 10 and 03 02 44 10) - Data in volumes, equivalent live weight, Extra-EU + Intra-EU trade The following conversion factors have been used to calculate imports and exports in equivalent live weight : 1,34 for fresh whole (CN code 03 02 51 10) and 2,85 for fresh fillets (CN code O3 04 44 10), according to Annex V "conversion factors" of EUMOFA Phase 2 Final report.

3.2 The British market

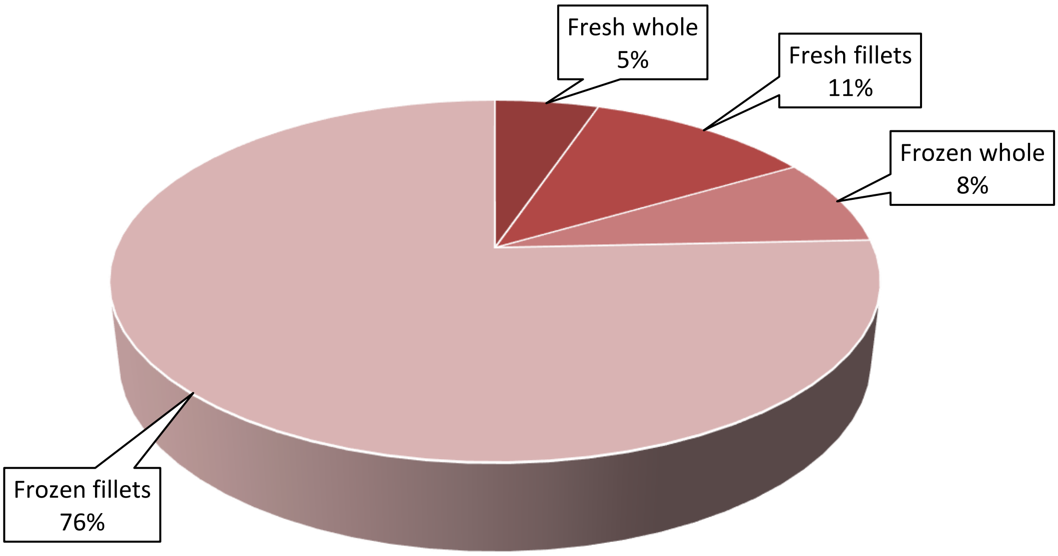
3.2.1 A significant fresh market

a) dependent on imports

The apparent British market for fresh cod amounts to 65 360 t (live weight) and relies for 68% on imports.

Imports of fresh cod represent 16% of overall cod imports (in live weight equivalent). Fresh makes up 38.5% of whole cod imported, whereas it contributes very little to fillet imports (12.6%).

Figure 5 – UK imports of cod in 2015 (tonnes – live weight equivalent)



Product	Net weight	Equivalent live weight
Fresh whole	10 430	13 976
Fresh fillets	10 735	30 593
Frozen whole	15 471	20 731
Frozen fillets	71 332	203 296
Total	107 967	268 596

Sources:
Elaboration from COMEXT (2015): Fresh or chilled – whole – (03025110, 03025190); Fresh or chilled – fillets- (03044410); Frozen – whole – (03036310, 03036330, 03036390); Frozen fillets (03047110, 03047190) Conversion factors used: 1,34 for whole, 2,85 for fillets

Generally speaking the UK is dependent on sources for seafood supply from third countries. Cod is with haddock the key whitefish species for the UK market. Iceland represents a key source of supply for both cod and haddock into the UK.

In 2015, UK imported 108,000 t of cod and exported 12,460 t.

b) with increasing share of fillets in imports

Over the last decade the share of the whole fish in the British imports of fresh cod has decreased significantly in favour of fillets.

The part of whole cod fell from 48% in 2006 to 31% in 2015 in volume (live weight). Despite the global increase of the volume imported in 2013 (+34% between 2012 and 2013), the share of whole cod and fillets is almost stable since 2013 (around 30% of whole cod and 70% of fillets).

In value the drop of whole cod in imports is even stronger (from 44% to 26%) since the import price of the fresh whole cod decreased (-9% over the decade) whereas the fillet price increased by 5%.

According to the stakeholders interviewed, the sharp increase observed since 2012 for the imports of fresh cod fillets is due to the development of the Icelandic processing industry which was relatively undeveloped until these last years.

Figure 6 – UK imports of fresh cod (volume in t live weight)

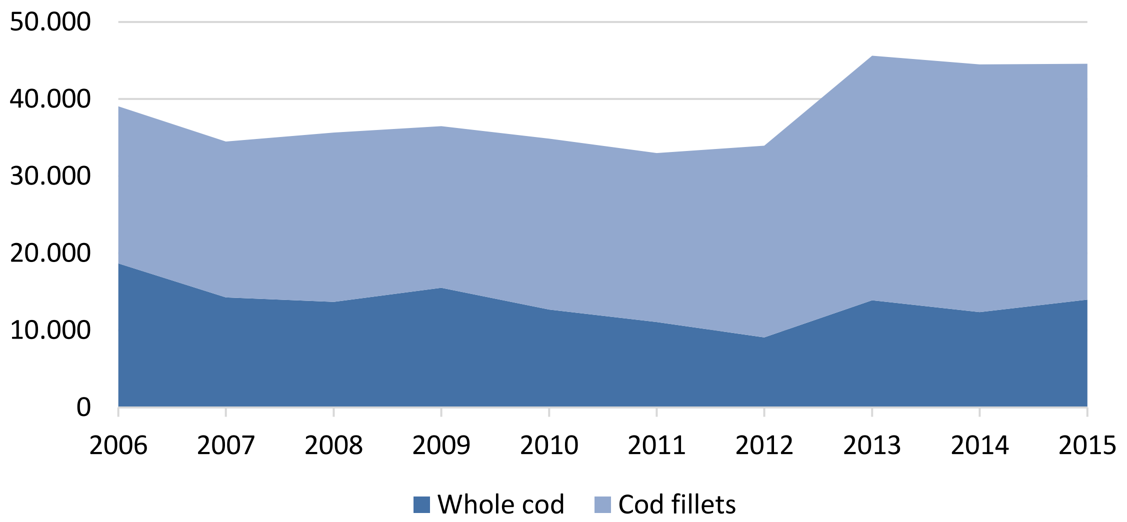


Table 7 –UK imports of fresh cod (volume in t live weight)

	Whole cod			Cod fillets			Fresh cod - all (equiv.live weight)	
	t net weight	t live weight	1 000 EUR	t net weight	t live weight	1 000 EUR	t	1 000 EUR
2006	13 943	18 684	51 126	7 152	20 383	64 259	39 066	115 384
2007	10 652	14 274	43 016	7 092	20 212	76 653	34 486	119 669
2008	10 208	13 679	35 885	7 717	21 992	70 888	35 671	106 774
2009	11 582	15 519	35 643	7 361	20 977	56 303	36 497	91 947
2010	9 472	12 693	27 422	7 782	22 180	68 795	34 872	96 217
2011	8 257	11 065	23 913	7 697	21 935	77 713	33 000	101 626
2012	6 783	9 089	20 648	8 731	24 883	80 816	33 973	101 464
2013	10 371	13 897	28 052	11 134	31 731	89 695	45 628	117 746
2014	9 216	12 349	25 614	11 275	32 133	95 022	44 482	120 636
2015	10 430	13 976	34 754	10 735	30 595	100 089	44 571	134 843

Sources:
Elaboration from COMEXT (2015): Fresh or chilled – whole (03025110, 03025190); Fresh or chilled – fillets (03044410).

c) Iceland, supplier n°1

The largest volume of fresh cod is sourced from Iceland, which in 2015 supplied 41% of whole cod and 87% of cod fillets imported by the UK (in volume).

Figure 7 – UK fresh whole cod imports by origin (volume in tonnes net weight)

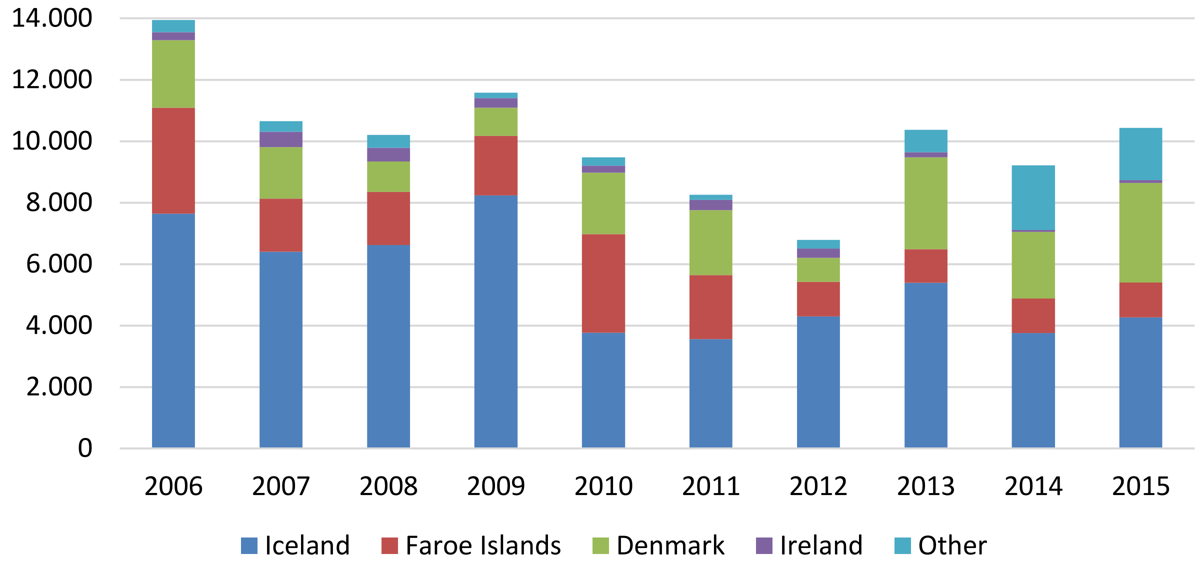


Table 8 – UK fresh whole cod imports by origin (volume in tonnes net weight)

Origin	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Iceland	7 643	6 400	6 621	8 235	3 766	3 556	4 298	5 391	3 750	4 261
Faroe Islands	3 445	1 732	1 726	1 935	3 204	2 089	1 119	1 095	1 131	1 139
Denmark	2 196	1 676	990	923	2 001	2 115	782	2 987	2 169	3 241
Ireland	268	496	451	307	228	328	303	162	55	88
Others	393	348	420	181	273	170	281	735	2 110	1 700
TOTAL	**13 943**	**10 652**	**10 208**	**11 582**	**9 472**	**8 257**	**6 783**	**10 371**	**9 216**	**10 430**

Sources:
Elaboration from COMEXT: Fresh or chilled – whole – (03025110, 03025190), net weight.

These Icelandic supplies are transported in container ship and is landed into Immingham port (for sale through auction markets, mainly at Grimsby).

95% of the fresh supplies, mainly head-on gutted cod and haddock, arrive by road from Immingham port to Grimsby Fish Market, while a small share of the volume is transported by air (fresh cod fillets).

Furthermore Iceland is the largest supplier of frozen cod.

Figure 8 – UK fresh cod fillet imports by origin (volume in tonnes net weight)

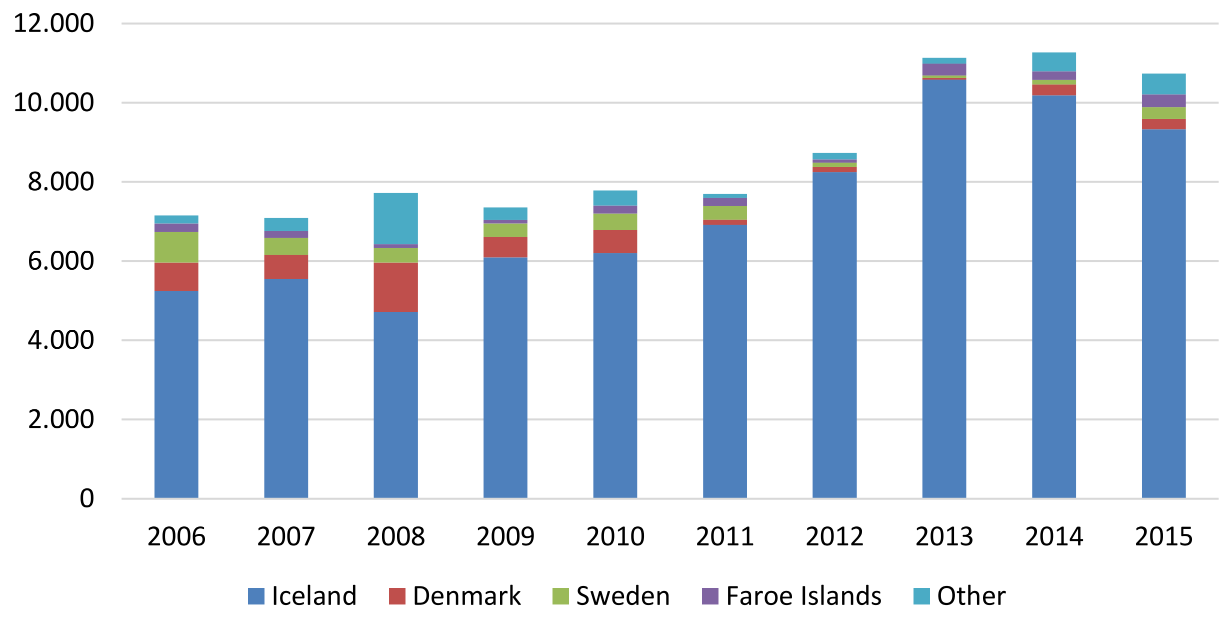


Table 9 – UK fresh cod fillet imports by origin (volume in tonnes net weight)

Origin	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Iceland	5 245	5 541	4 709	6 092	6 204	6 924	8 243	10 586	10 189	9 331
Denmark	719	616	1 255	520	582	129	130	36	275	256
Sweden	769	430	367	337	417	335	114	67	113	304
Faroe Islands	220	168	99	92	200	211	78	299	217	324
Others	199	337	1 287	319	379	98	165	146	481	519
TOTAL	**7 152**	**7 092**	**7 717**	**7 361**	**7 782**	**7 697**	**8 731**	**11 134**	**11 275**	**10 735**

Source:
Elaboration from COMEXT: Fresh or chilled – fillets – (03044410), net weight

3.2.2 The Grimsby Market

Grimsby is one of the 5 main auction markets in UK. The four other ones are: Peterhead, Brixham, Plymouth and Newlyn.

Unlike the other four auction markets, Grimsby is heavily dependent on supplies from Iceland, Norway, Faroe Islands and Scotland.

Grimsby used to be an important landing place during the years of the gadoid boom in the 1970s and early 1980s. Very few British vessels land in Grimsby now, and Peterhead took recently the first place in terms of value of fish sold. 65% of fish sold at Grimsby is brought from Iceland (through Immingham port).

The region benefits from a special trading relationship with Iceland, a number of globally significant processing companies and a good logistics to UK retailers. The Grimsby market attracts more buyers than any other market in the UK, with more than 60 registered buyers.
The specificity of Grimsby market is that almost all the fish handled is imported, mainly from Iceland, Norway and Faroe Islands. The fresh raw material supplied by the UK vessels is fresher and of better quality than the imported fish, but its share is very limited and continued to decrease in 2015.

As Peterhead auction market is specialized in domestic fish landings and operates on another area, there is no competition with Grimsby.

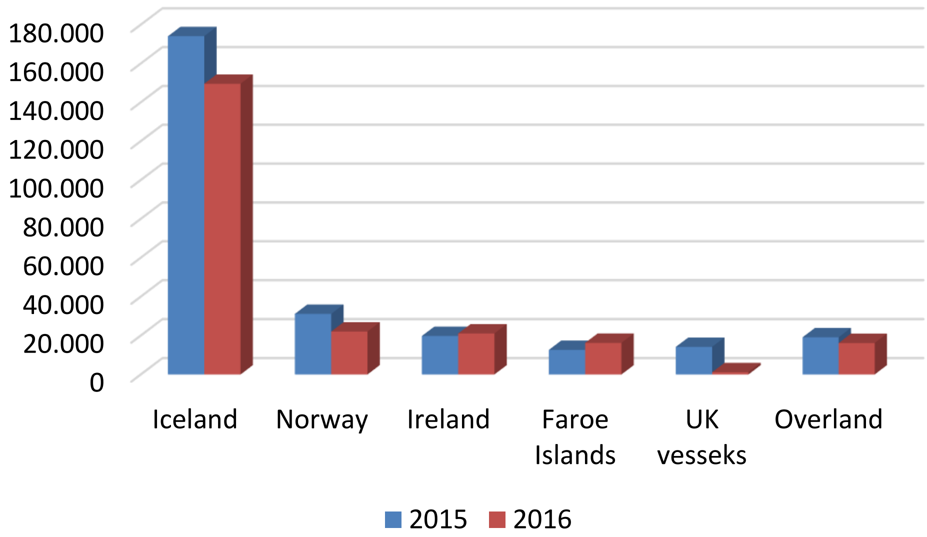
Competition is stronger at the second level: near 60 processors, large and small companies, are located around the Grimsby market.

A large part of the fresh fish supplies from Iceland/Norway/Faroe goes directly to processors.

Fish supplied to Grimsby market is generally made up as follows: 50% haddock, 30% cod and the remaining 20% is made up of mix species[1].

As data have been collected in November 2016, the figure below compares the first 47 weeks of 2015 with the first 47 weeks of 2016.

Figure 9 - Volume of fish landed by origin in Grimby –in boxes (1 box = 50 kg)



Operation		Iceland	Norway	Ireland	Faroe Islands	UK vessels	Overland	TOTAL
% of total landings by country of origin	**2015**	64%	11%	7%	5%	5%	7%	**100%**
	2016	66%	10%	9%	7%	1%	7%	**100%**

Sources:
Interview of the Chief executive of Grimsby Fish Dock Enterprises Limited.

Iceland is the main supplier of the Grimsby market (64% of the fresh fish landed in 2015). The other suppliers are Norway, Ireland, Faroe Islands, Denmark and Scotland. Deliveries of domestic vessels fell from 5% in 2015 to 1% in 2016.

[1] From the interview of the chief executive of Grimsby Fish Dock Enterprises Limited.

In 2015 a total of 13 545 t (270 908 boxes) of fresh fish was landed at Grimsby market. It is 18% less than in 2011 which represents an average decrease of -4,5% per year since 2011.

In 2016, this volume was 11 312 t at the end of October, confirming the decreasing trend of the volumes landed.

3.2.3 Structure of the supply chain

The supply chain is influenced by (among other factors) the preferences of end markets and available supplies:

o Large processors supply national outlets in retail and food service with sizeable volumes of cod and haddock often sourced through direct contracts.

o Mid-sized processors source material for regional outlets by direct contract, by supplies from Hull and Grimsby fish markets or both contract and market supply.

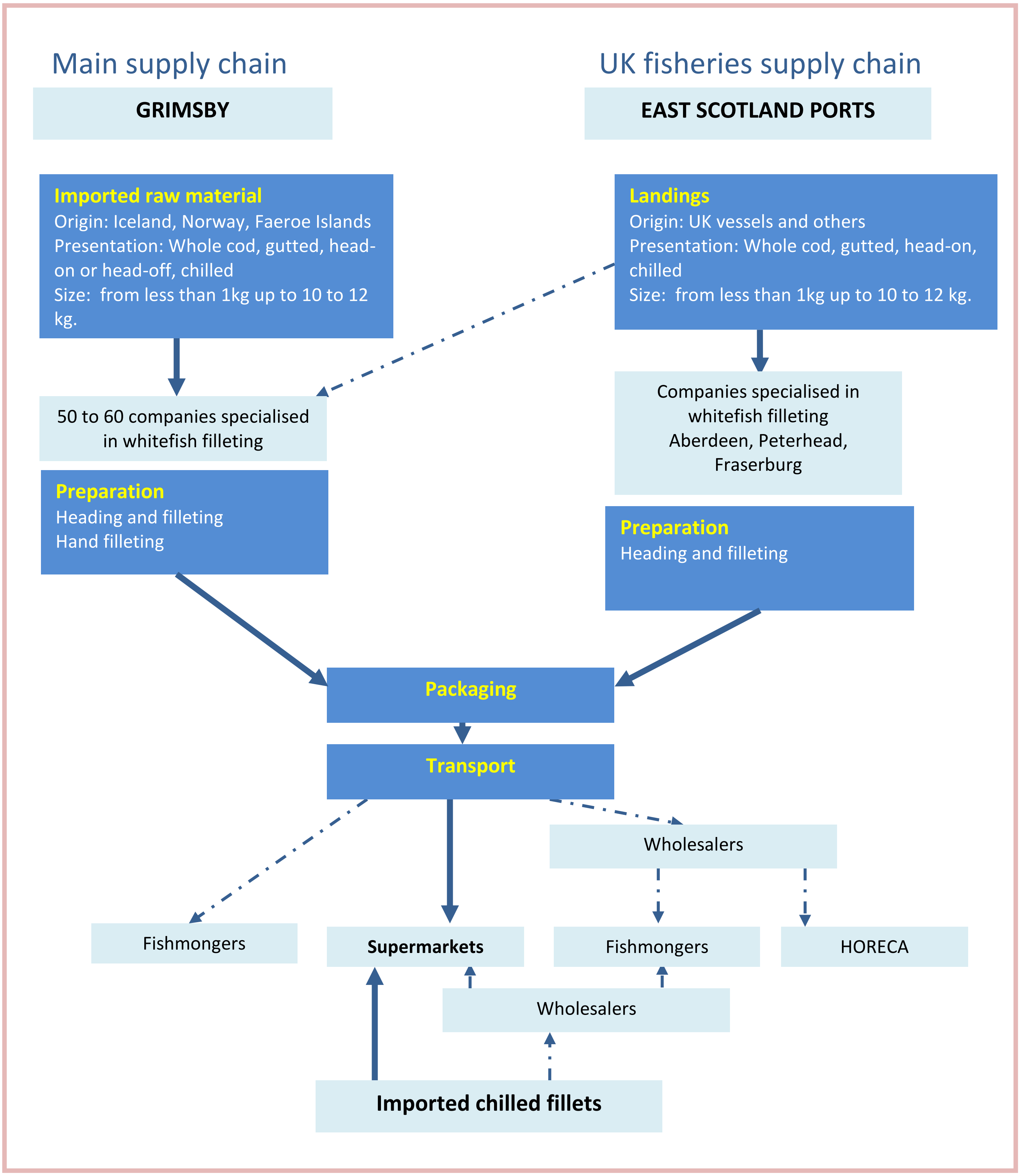
o Small processing firms cut material for local outlets and are almost entirely reliant on the fish markets[2].

Taking into consideration that most of the cod imported in the UK comes through Grimsby[3], the case study focuses on price structure for whole chilled cod imported in containers from Iceland, Norway and Faroe Islands, filleted in Grimsby facilities and marketed in UK supermarkets (chilled).

[2] Outlook for supplies of Icelandic cod and haddock in the UK – Seafish 2010

[3] Interview the chief executive of Grimsby Fish Dock Enterprises

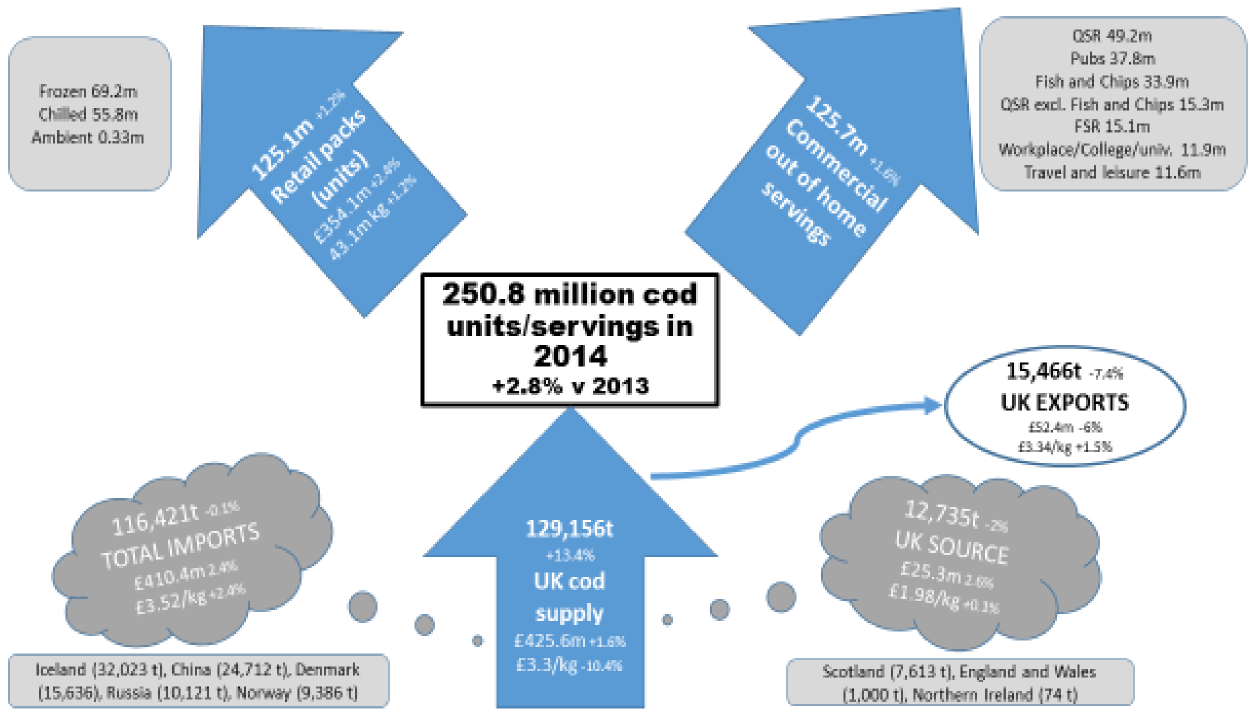
Figure 10 – Fresh cod supply chain



Sources:
Interview of the Chief executive of Grimsby Fish Dock Enterprises Limited.
Interview of Robert Stevenson – Lunar FPO Ltd (Peterhead – Aberdeenshire)

The following diagram from Seafish (realised in 2015 with 2014 data) gives detailed analysis of the fresh cod supply chain.

Figure 11 – Value chain analysis for cod (2014)



Source: Seafish-Seafood industry factsheet – Market overview: cod (July 2015)

3.2.4 Segmentation of the market

The main segmentation of the market is based on the size of the fish. Cods can weigh from less than 1 kg to 10 to 12 kg. Fish are graded under 6 categories from 1 (for the largest ones) to 6 (for the smallest ones).

Table 10 – Segmentation by fish sizes

Grade	Fish size
Grade 1: Extra large	7 kg and more
Grade 2: Large	4 to 7 kg
Grade 3: Medium	2 to 4 kg
Grade 4: Best small	1 to 2 kg
Grade 5: Small	0,5 to 1 kg
Grade 6: Extra small	Less than 0,5kg

Source: Chief executive of Grimsby market

The choice depends on the demand and the use (consumers or processing industry) but big fish are easier to process than small ones. The quality of the fish is estimated by each buyer during the auction sale.

3.2.5 Consumption

3.2.5.1 Consumption of fish

In volume, household consumption of fresh fish in the UK is increased by 2% between 2010 and 2016 and the consumption of fresh cod increased by 26% over the same period.

Consumer expenditure on fish is also on an increase trend since 2010 (+29% on the total fresh fish and +38% regarding the fresh cod only).

Table 11 – Fresh fish and cod consumption in volume and value from 2010 to 2016

	2010	2011	2012	2013	2014	2015	2016
Volume (net weight - 1000 tonnes)							
Total fresh fish	300,9	270,0	296,7	300,7	293,4	307,7	307,9
Fresh cod	51,7	47,1	46,4	51,4	57,5	64,5	65,1
Value (1000 EUR)							
Total fresh fish	2.535	2.328	2.836	2.800	3.070	3.654	3.270
Fresh cod	382	358	400	426	499	608	528

Source: EUMOFA

3.2.5.2 Consumption of white fish

Experts interviewed during the field survey consider as “substitute” of cod any other white fish species that can replace cod in some dishes like ‘fish and chips’. In most cases, these fish species are cheaper than cod. In UK, haddock, hake, pollock and pangasius are white fish species, in good and growing supply, which are often used in replacement of cod if cod is too expensive.

In volume, the consumption of white fish declined significantly, much more for fresh than for frozen. The consumption of frozen white fish was on a decrease trend from 2006 to 2011; then rose up in 2012, and fluctuated in 2013 and 2014.

Table 12 – White fish household consumption in quantity (grams/person/week)

	2006	2007	2008	2009	2010	2011	2012	2013	2014
White fish, fresh	20	17	16	15	15	13	12	13	13
White fish, frozen	8	8	8	8	6	5	9	6	7
Total fish	170	165	161	158	151	147	144	146	144

Source: DEFRA Family Food Datasets

To this household consumption have to be added 9 grams per person per week of white fish eaten out in 2014 (8 grams, stable in the period 2006-2013).

The frozen market is also an important volume market.

3.2.5.3 Balance sheet for cod

The volume of cod available for domestic use has significantly increased in the last years (+42% between 2011 and 2015).

Table 13 – Balance sheet for cod for the UK: 2011 to 2015

	Quantity (1000 tonnes)					Value (GBPmillion)				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Landings by UK vessels into the UK [a]	10,9	10,9	11,2	12,0	13,2	27,5	24,9	25,8	27,8	29,5
Imports [b]	103,1	101,5	116,3	116,4	115,4	409,2	395,2	400,4	410,0	440,2
Total supplies [c]	**114,0**	**112,4**	**127,5**	**128,4**	**128,6**	**436,6**	**420,2**	**426,2**	**437,8**	**469,8**
Exports [b]	34,8	20,2	16,7	15,5	16,0	99,6	55,3	55,6	52,7	53,2
Total available for domestic use [c]	**79,2**	**92,2**	**110,9**	**112,9**	**112,5**	**337,1**	**364,8**	**370,5**	**385,2**	**416,6**

(a) Landings are given in terms of landed weight

(b) Excludes fish products

(c) Excludes sources of fish other than imports and landings into the UK by UK vessels from sea fisheries

Source:
H.M. Revenue and Customs and Fisheries Administrations in the UK

3.3 The French and the Spanish markets for fresh cod

The French market for fresh cod is highly dependent on imports with 88% of the apparent market provided by imports in 2015 (mainly from EU suppliers).

The French market is the largest one within EU and it has grown by 83% between 2006 and 2015 to reach 75.646 tonnes in 2015. Imports have increased each year over this period and decreased by 11% in 2015.

Compared with the UK market, French exports are very few (around 3.400 tonnes in 2015); as well as production (12.635 tonnes in 2015).

Table 14 – The French market for fresh cod (t equivalent live weight)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Production	8 004	8 363	7 339	4 993	5 298	10 227	9 259	13 156	12 234	12 635
Imports	34 743	30 230	30 436	48 160	49 994	50 075	52 715	68 776	74 675	66 408
Exports	1 348	1 057	1 088	2 413	2 760	3 539	2 343	3 013	3 040	3 397
Total available for domestic use	**41 398**	**37 536**	**36 688**	**50 740**	**52 532**	**56 763**	**59 630**	**78 919**	**83 869**	**75 646**

Sources:
FAO - Fisheries and Aquaculture Information and Statistics Service – Global capture of Atlantic cod COMEXT – Import and export of whole fresh Atlantic cod (CN code 03 02 51 10) and fresh cod fillets (CN code O3 04 44 10) Apparent domestic market for each Member State is calculated in live weight as follows : production – export + import; the following conversion factors have been used to calculate imports and exports in equivalent live weight : 1,34 for fresh whole (CN code 03 02 51 10) and 2,85 for fresh fillets (CN code O3 04 44 10), according to Annex V "conversion factors" of EUMOFA Phase 2 Final report.

The Spanish market is also highly dependent on imports with 63% of the apparent market provided by imports in 2015 (mainly from EU suppliers). It is the third largest EU market for fresh cod after the French and the British one.

Production and exports are higher than the French ones with respectively 20.824 tonnes and 9.188 tonnes in 2015, but imports are fewer (19.536 tonnes in 2015).

The Spanish market is globally on an increase trend: the apparent market has grown by +298% over the period.

Table 15 – The Spanish market for fresh cod (t equivalent live weight)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Production	556	5 022	9 915	11 824	14 088	15 420	12 781	17 602	18 697	20 824
Imports	9 420	9 426	15 340	11 119	13 540	12 712	25 680	32 323	21 806	19 536
Exports	2 145	2 358	2 241	1 371	1 386	1 144	5 129	5 924	7 002	9 188
Total available for domestic use	**7 832**	**12 090**	**23 014**	**21 572**	**26 242**	**26 988**	**33 333**	**44 000**	**33 501**	**31 172**

Sources:
FAO - Fisheries and Aquaculture Information and Statistics Service – Global capture of Atlantic cod COMEXT – Import and export of whole fresh Atlantic cod (CN code 03 02 51 10) and fresh cod fillets (CN code O3 04 44 10) Apparent domestic market for each Member State is calculated in live weight as follows : production – export + import; the following conversion factors have been used to calculate imports and exports in equivalent live weight : 1,34 for fresh whole (CN code 03 02 51 10) and 2,85 for fresh fillets (CN code O3 04 44 10), according to Annex V "conversion factors" of EUMOFA Phase 2 Final report.

3.4 Key drivers of the market

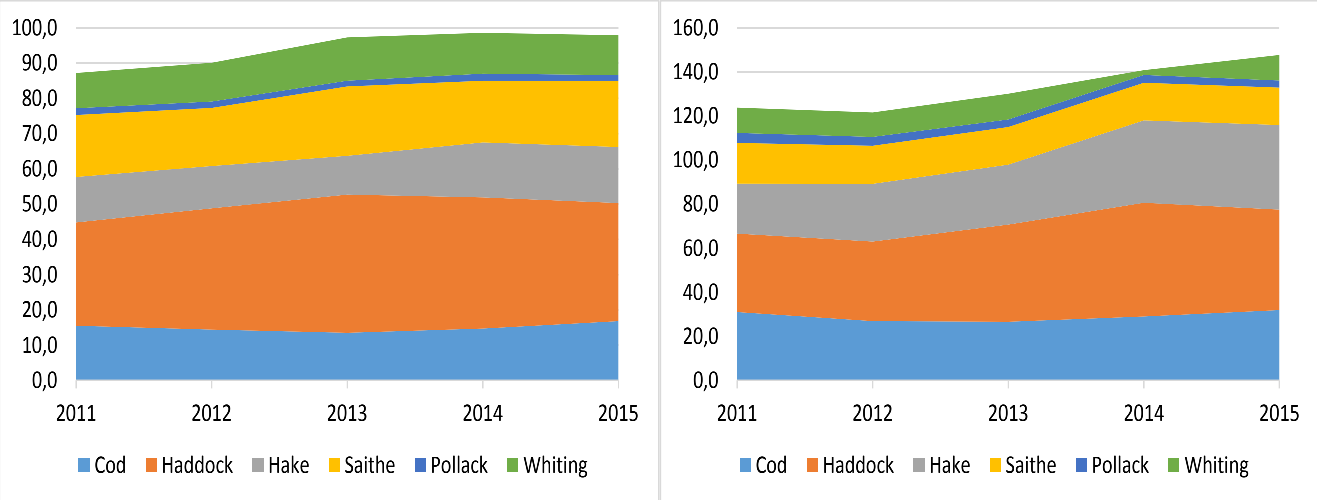
3.4.1 Comparison with other white fish species

Cod is the most popular whitefish in the UK (the other major whitefish species are haddock and saithe) but only the second landed species behind haddock.

Table 16 – Evolution of landings of major whitefish species

	Landings into the UK by UK vessels: 2011 to 2015									
	Quantity (1000 tonnes)					Value (GBP million)				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Cod	**12,7**	**12,7**	**13,0**	**14,0**	**15,4**	**27,5**	**24,9**	**25,8**	**27,8**	**29,5**
Haddock	28,3	34,0	38,7	35,4	32,4	34,6	35,7	43,5	49,3	44,2
Hake	6,7	6,5	6,5	8,5	8,8	12,5	13,5	16,1	19,7	20,9
Saithe	12,7	11,0	12,9	11,1	9,9	13,4	11,3	11,0	10,2	8,5
Pollack	1,9	1,8	1,6	1,9	1,6	4,4	3,9	3,4	3,4	3,1
Whiting	9,7	10,8	12,0	11,1	10,7	11,3	10,9	11,5	1,8	11,0
Total 6 species	72,0	76,8	84,7	82,0	78,8	103,7	100,2	111,3	112,2	117,2
	Landings into the UK by foreign vessels: 2011 to 2015									
	Quantity (1000 tonnes)					**Value (GBP million)**				
	2011	**2012**	**2013**	**2014**	**2015**	**2011**	**2012**	**2013**	**2014**	**2015**
Cod	2,8	1,7	0,5	0,7	1,4	3,5	2,0	0,8	1,2	2,4
Haddock	1,0	0,4	0,5	1,8	1,1	1,0	0,4	0,6	2,3	1,4
Hake	6,2	5,5	4,5	7,1	7,1	10,2	12,7	11,1	17,7	17,5
Saithe	4,9	5,5	6,8	6,4	8,9	5,1	6,0	6,1	6,9	8,5
Pollack	0,0	0,0	0,0	0,1	0,0	0,1	0,1	0,0	0,1	0,1
Whiting	0,3	0,2	0,3	0,5	0,6	0,2	0,2	0,2	0,4	0,6
Total 6 species	15,2	13,3	12,6	16,6	19,1	20,1	21,4	18,8	28,6	30,5
	Landings abroad by UK vessels: 2011 to 2015									
	Quantity (1000 tonnes)					**Value (GBP million)**				
	2011	**2012**	**2013**	**2014**	**2015**	**2011**	**2012**	**2013**	**2014**	**2015**
Cod	10,5	13,8	16,4	16,3	12,8	18,9	18,8	20,0	22,1	19,4
Haddock	1,6	1,2	1,1	0,9	0,9	1,9	1,4	1,1	1,1	0,9
Hake	1,3	1,8	2,5	2,8	3,8	2,2	4,2	6,7	6,3	8,4
Saithe	3,1	2,1	1,8	1,6	3,1	3,0	2,2	1,9	2,0	3,2
Pollack	0,4	0,5	0,6	0,6	0,5	1,1	1,2	1,4	0,6	0,6
Whiting	0,3	0,3	0,7	0,7	0,7	0,3	0,5	0,6	0,6	0,6
Total 6 species	17,2	19,7	23,1	22,9	21,8	27,4	28,3	31,7	32,7	33,1

Figure 12 – Landings in UK by UK and foreign vessels of major whitefish species (volume on the left side in 1000 tonnes and value on the right side in £ million)



Source:
UK Fisheries Statistics 2015.

Between 2011 and 2015 the landings in the UK (by both UK and foreign vessels) of the 6 major whitefish species increased in volume from 82,000 t to 97,900 t (+12%) and in value from 123.8 million £ to 147.7 million £ (+19%).

Haddock remains the main landed whitefish species with 34% in volume and 31% in value in 2015.

The relative importance of cod among the 6 major whitefish species decreased very slightly in the period, from 18% in 2011 to 17% in 2015 in volume and from 25% in 2011 to 22% in 2015 in value.

Landings of cod into the UK by UK vessels increased by 21% in volume between 2011 and 2015, whereas landings of cod into the UK by foreign vessels fell by 50%, with less than 1 500 t landed in 2015 (against 2 800 t in 2011).

Traditionally, UK vessels have landed the majority of cod into the UK, but from 2011 to 2015, the share of cod landed into the UK decreased from 81% to 78% meaning that UK vessels landed more cod abroad over this period. In 2015, UK vessels landed 12,775 tonnes abroad, mainly into the Netherlands and Germany.

The cod landed into the UK by the domestic and foreign vessels fluctuated between 713 and 2 394 t/month during 2014, with a peak during summer time.

Average prices for cod landed into the UK by the UK and foreign fleet peaked in September at 2,67 GBP/kg in 2014, coinciding with a low in the landings.

The average landing price of cod fell by 5%, from 2.00 GBP/kg in 2011 to 1.90 GBP/kg in 2015, while haddock price increased by 12% from 1.22 GBP/kg to 1.36 GBP/kg.

To put cod into perspective; cod, haddock and plaice are the three main demersal species landed by the UK fleet into the UK and abroad, by weight, accounting for half the quantity of all demersal species landed in 2015.

3.4.2 Landings of cod in Peterhead market

The majority of UK vessels catching cod are over 10m and land cod into Peterhead and Lerwick ports. As the port of Aberdeen closed, Peterhead is now three times bigger than Grimsby.

Landings of cod into Scotland are on an increase trend since 2011 (+36% between 2011 and 2015). The share of cod landed at Peterhead is stable on this period, around 60%.

Most of the volumes landed in Peterhead are captured in the North Sea and West of Scotland; whereas Grimsby is the main market for imported cod. The price of cod landed in Peterhead is decreasing since 2011 to reach 1.90 GBP/kg (2.6 EUR/kg) in 2015.

Table 17 – Evolution of landings of major whitefish species into Scotland

	Landings into Scotland: 2011 to 2015									
	Quantity (1000 tonnes)					Value (GBP million)				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Cod	11,2	11,3	12,2	13,5	15,2	24,6	22,2	24,0	27,1	29,4
Haddock	25,7	31,1	37,1	35,8	31,8	32,0	32,5	41,4	49,6	43,4
Hake	12,2	11,2	10,1	14,6	14,5	21,4	24,8	25,3	35,5	35,8
Saithe	17,4	16,3	19,5	17,4	18,7	18,3	17,2	16,9	16,9	16,9
Pollack	0,5	0,5	0,4	0,4	0,6	1,1	1,0	0,8	0,8	1,0
Whiting	8,0	8,9	10,1	9,6	9,5	9,8	9,5	10,2	10,8	10,3
Total 6 species	75,0	79,2	89,4	91,3	90,3	107,2	107,2	118,6	140,7	136,8

Table 18 – Prices of the main whitefish species at Peterhead (GBP/kg)

	2011	2012	2013	2014	2015
Cod	2,21	1,99	1,99	2,00	1,90
Haddock	1,26	1,06	1,10	1,40	1,37
Hake	1,38	1,47	1,50	1,33	1,31
Saithe	1,09	1,07	0,89	1,03	0,91
Pollack	2,33	2,14	1,96	1,90	1,75
Whiting	1,32	1,12	1,07	1,20	1,11
Total 6 species	1,42	1,26	1,22	1,40	1,33

Source: Scottish statistical tables for fish landings

Main stocks and their level of exploitation:

In recent years, some seriously depleted stocks have become the subject of emergency measures and recovery plan proposals. Since 2003, the TAC (Total Allowable Catches) and fishing mortality for these stocks have been linked to effort control measures that restrict the number of fishing days at sea per annum permitted for fleets capturing recovery species.

Table 19 – Stocks and TAC evolution for cod

	TAC (tonnes)			ICES stock assessment
	2014	2015	2016	
North Sea cod in ICES Sub-area IV (North Sea), ICES Division VIId (Eastern Channel) and ICES Division IIIa (Skagerrak)	27.799	29.189	33.651	The cod stock in the North Sea has been assessed as suffering reduced reproductive capacity by ICES since 2004. In 2015, it was assessed as at risk of suffering reduced reproductive capacity.
West of Scotland cod in ICES division VIa	0	0	0	Cod stocks in the West of Scotland have been assessed as suffering reduced reproductive capacity from 2001 to 2015.
Irish Sea cod in ICES Division VIIa (Irish Sea)	228	182	146	Irish Sea cod has been assessed to be suffering reduced reproductive capacity since 2004.

Source: UK Fisheries Statistics 2015

In the North Sea, the cod stock remains seriously depleted. Since 2000, ICES (International Council for the Exploration of the Sea) advised that the TAC should be very low, or zero, and the EU reduced the TAC from 81,000 tonnes in 2000 to 27,300 tonnes in 2003, 2004 and 2005.

The 2015 ICES assessment indicates that the 2005 year-class is estimated to be one of the most abundant amongst the recent poor year classes. Agreement was reached in 2004 within the EU on a formal recovery plan operational in 2005. Subsequently, this was repealed and replaced by Council Regulation (EC) No 1342/2008 to establish a long-term plan for cod stocks.

Previously, the cod stocks **West of Scotland** have been assessed as heavily over-exploited with respect to the rate that would lead to high long-term yields. ICES called for a recovery plan in 2000 with low or zero catches, and the EU has since cut the cod TACs significantly, implemented two small closed areas, and in 2003 increased the main whitefish mesh size to 120mm in line with the North Sea. The TAC for 2016 is a by-catch provision only, the same as in the four previous years (2015, 2014, 2013 and 2012).

The cod stocks in the **Irish Sea** are seriously depleted, and landings fell rapidly during the 1980s and 1990s. The fishing rate has been very high, spawning stocks have fallen below both the precautionary and the lower limit level, and the abundance of young cod has been in decline since 1990. After 2000, the EU significantly reduced the cod TAC, closed the cod spawning area in the western Irish Sea during the spawning season, and increased the main whitefish mesh size to 100 mm. The 2014 cod assessment suggests that the stock is still over-exploited although the time series estimates of fishing rate have been substantially revised, following a review of data and modelling approaches for the 2012 assessment[4].

[4] Source: UK Fisheries Statistics Report of 2015

4 PRICES ALONG THE SUPPLY CHAIN

This chapter analyses available price data and price trends at different levels of the fresh cod supply chain in the United Kingdom, with the objective to set the framework for price structure analysis (chapter 5).

4.1 Price of raw material

4.1.1 Evolution of UK import prices

The evolution of imported fresh cod prices in the last decade is more fluctuating for fillets than for whole cod, even if prices are increasing since 2013 in both cases (more significantly for the whole cod).

Since a drop in 2007, the price of fresh whole cod was on a clear downward trend from 2007 to 2013; and then increased by 23% between 2013 and 2015.

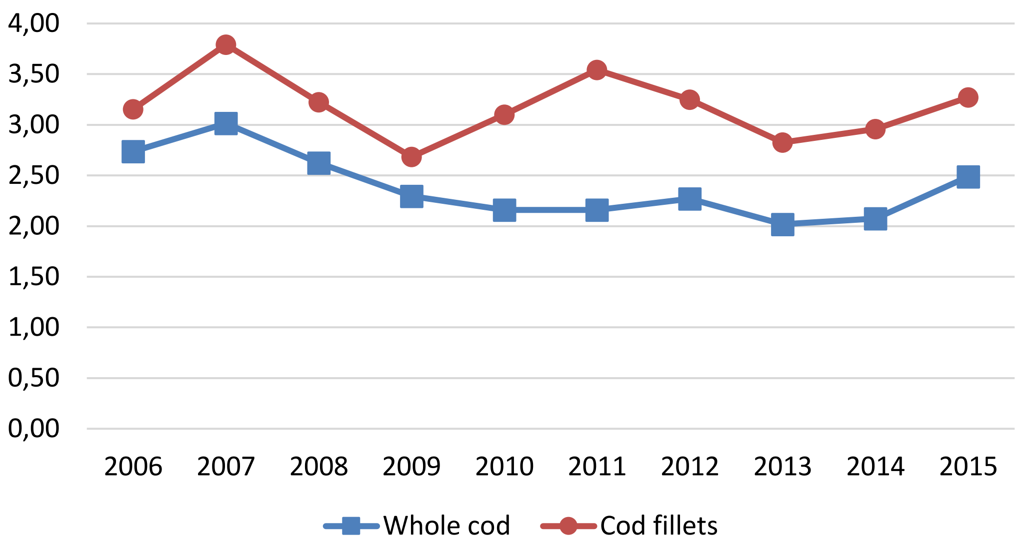
For fresh fillets of cod, the price was the highest one of the decade in 2007; then decreased by 29% until 2009; increased again until 2011 (+32%); decrease until 2013 (-16.5%) and is on a upward trend since then.

On the whole period (2006-2015), the general trend of import prices is negative for the whole cod (-9%) and positive for the cod fillets (+4%).

Table 20 – Average unit prices of imported fresh cod (whole and fillets) in the UK (EUR/kg)

	Net weight		Equivalent live weight	
	Whole cod	Cod fillets	Whole cod	Cod fillets
2006	3,67	8,98	2,74	3,15
2007	4,04	10,81	3,01	3,79
2008	3,52	9,19	2,62	3,22
2009	3,08	7,65	2,30	2,68
2010	2,89	8,84	2,16	3,10
2011	2,90	10,10	2,16	3,54
2012	3,04	9,26	2,27	3,25
2013	2,70	8,06	2,02	2,83
2014	2,78	8,43	2,07	2,96
2015	3,33	9,32	2,49	3,27

Figure 13 – Price evolution of imported fresh cod (EUR/kg live weight equivalent)



Source:
Elaboration from COMEXT

4.1.2 Prices of fresh cod at Grimsby

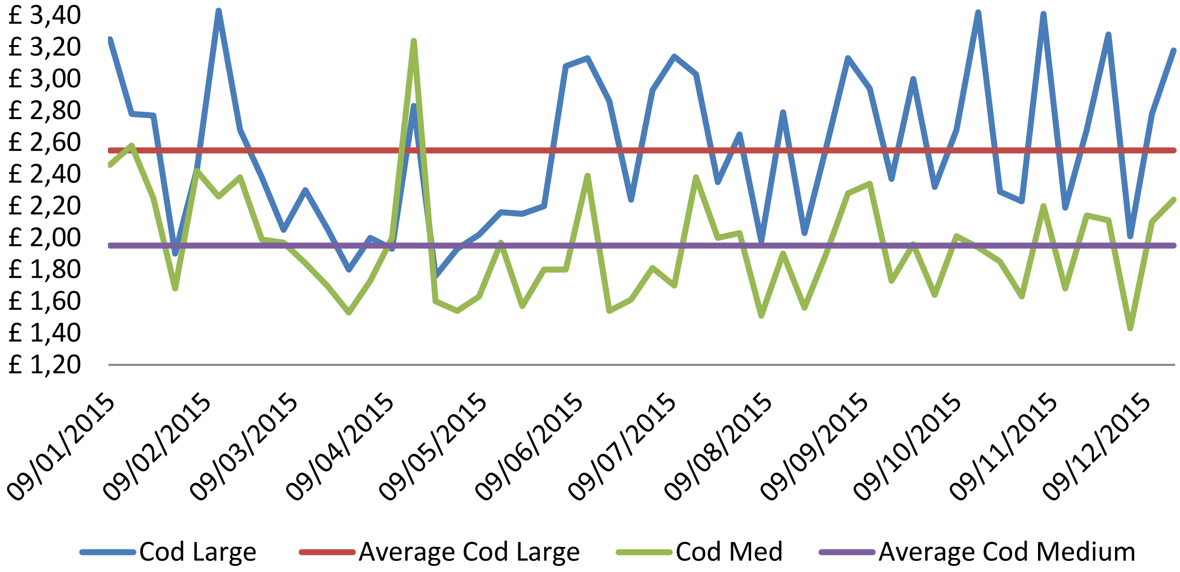
As it is coming mostly from Iceland and Faroe Islands which are cheaper origins than EU suppliers (particularly Denmark), the price of cod in Grimsby is lower than the average UK import price.

Table 21 – Price of imported fresh cod (whole) in Grimsby

2015	UK	Grimsby
Import fresh whole cod (EUR/kg net weight)	3,33	3,10

Source:
UK: COMEXT
Grimsby: Grimsby Fish Dock Enterprises (Average price of cod: GBP 2.25)

Figure 14 – Prices of cod arriving at Grimsby (2015)



Sources:
Grimsby data (interview of the chief executive of Grimsby Fish Dock Enterprises – November 2016)

4.2 Ex-factory prices

Price data series could not be collected at this stage of the supply chain.

PRODCOM gives data on ex-factory prices but it does not give detail by fish species. The nomenclature does not detail more than “Fresh or chilled fish fillets and other fish meat without bones” (code 10201100).

Stakeholders and actors met during the field survey gave information and data on their specifics costs (processing, packaging, ice, labelling, transport and margin). These indicative figures are presented in §5.1.

4.3 Retail prices

Cod consumption in retail has been growing since 2013, as supply eases and prices soften. As illustrated in the table 20 below, in 2015, cod total retail sales (excluding discounters) were worth GBP 363m (+2%) at 45,117 tonnes (+3%) with an average price of GBP 8.05 (-1%).

In 2015 the average retail price of fresh natural cod was 20.7 GBP/kg (28.5 EUR/kg), which is -6.3% compared with the year before.

Table 22 – Retail prices of cod in UK

	Volume (t)		Value (1000 GBP)		Price (GBP/kg)	
	2014	2015	2014	2015	2014	2015
FISH (all categories)	333 168	329 225	3 125 493	3 101 262	9.38	9.42
COD (all categories)	43 773	45 117	355 855	363 024	8.13	8.05
COD FRESH	13 693	14 063	176 997	175 544	12.93	12.48
FRESH NATURAL COD	***4 232***	***4 421***	***93 541***	***91 532***	***22.1***	***20.71***
FRESH BATTER COD	*130*	*334*	*1 140*	*2 886*	*8.74*	*8.63*
FRESH BREADED COD	*3 142*	*3 169*	*27 595*	*27 906*	*8.78*	*8.81*
FRESH CAKES COD	*3 345*	*3 140*	*26 737*	*23 938*	*7.99*	*7.62*
FRESH DUSTED COD	*272*	*356*	*2 751*	*3 752*	*10.1*	*10.54*
FRESH FINGERS COD	*158*	*306*	*1 312*	*2 455*	*8.32*	*8.02*
FRESH MEALS COD	*1 007*	*777*	*7 520*	*6 100*	*7.47*	*7.85*
FRESH PREPARED COD	*582*	*695*	*9 155*	*9 230*	*15.73*	*13.29*
FRESH SAUCE COD	*825*	*865*	*7 248*	*7 745*	*8.79*	*8.96*

Source:
Elaboration from Seafish data (Interview of R. Watson).

Cod value sales are split virtually 50/50 between chilled and frozen states; but by volume, British people eat nearly two and a half times more frozen cod that fresh cod. By product type, natural cod takes the largest share value (30%).

According to Seafish, the share between the retail market and the foodservice market at UK level is estimated more or less at 50-50.

According to Grimsby Fish Merchants, 70% of fresh cod fillets traded in Grimsby are going to the retail market.

5 Price structure analysis in the UK

The price structure for fresh cod fillets made in Grimsby from fresh whole cod imported from Iceland **refers to the market situation and the price conditions in November 2016**.

The raw material price of 2.25 GBP/kg was the price collected during the field survey. The retail price of 18.60 GBP/kg as well as the values in the chain have been given by stakeholders met during that field survey.

These people met during the field survey were not able to detail the retailer's costs and margin.

It has to be clearly specified that data presented are indicative as some costs can vary significantly (processing costs for example, depending on the species, or transport which is dependent on volume and location).

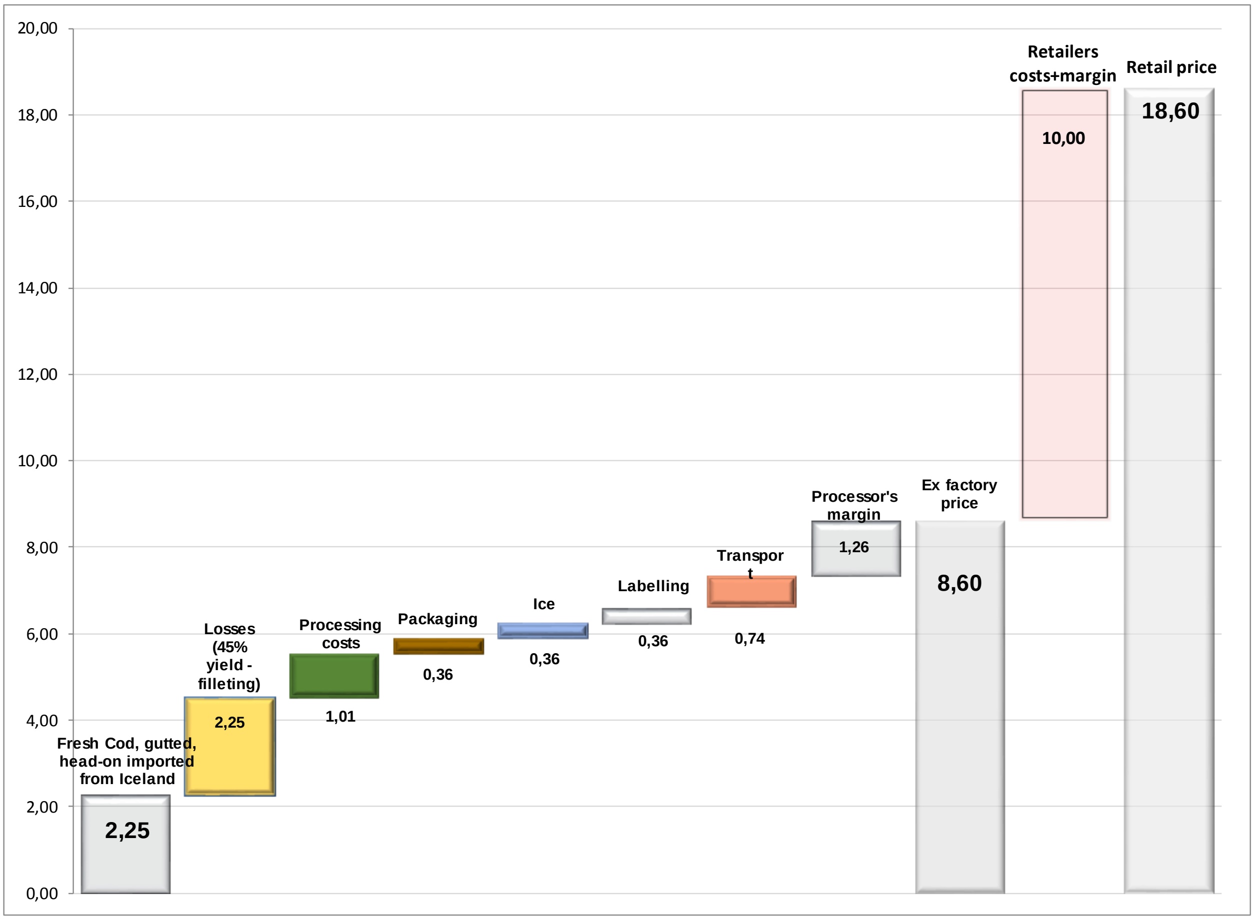
Regarding the price structure in the supply chain for the fresh cod fillet:

- The filleting is a key step of the process as filleting losses are estimated to account for 45% from the whole fresh cod (gutted, head-on).
- The ex-factory price is estimated at 46% of the retail price. The main costs are: processing, packaging, ice, labelling, transport and processor's margin.
- 54% of the retail price is the retailer costs and margin.

Finally, if we consider the official Norwegian conversion rates, the yield for fresh fillet would be 41%[5] but the stakeholders interviewed consider that 45% is more realistic.

[5] See the table page 3 (35% for fillet / 85% for live fish gutted head-on = 41%)

Figure 15 – Price structure analysis for fresh cod fillet in UK –GBP/KG

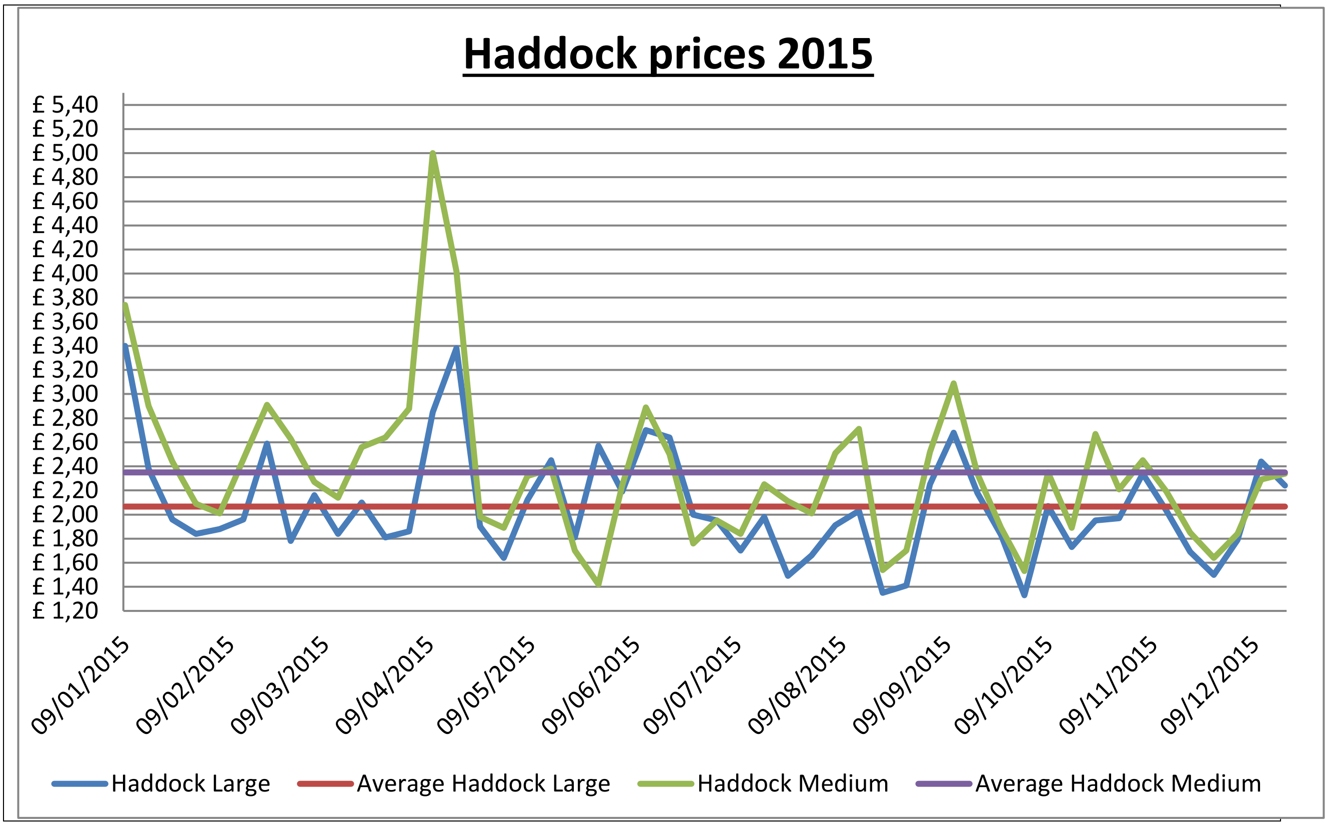


Source: Elaboration with expert interview at Grimsby market (chief executive of Grimsby Fish Dock Enterprises) for the processing of fresh cod imported from Iceland gutted and head-on to fresh fillets, Grimsby processors record an average filleting yield of 50%.

6 ANNEXES

6.1 Prices of other fish species

Prices of haddock landed at Grimsby



6.2 Persons met

- **Port of Grimsby East**

Chief Executive

Grimsby Fish Dock Enterprises Ltd.

- **SEAFISH**

Market Analyst

Origin Way, Europarc

Grimsby DN37 9TZ

- **JAINES SEAFOOD**

Managing Director

- **LUNAR FPO LTD**

East Quay – The Harbour

Peterhead – Aberdeenshire

“Fresh Cod in the United Kingdom” is published by the Directorate-General for Maritime Affairs and Fisheries of the European Commission.

Editor: European Commission, Directorate-General for Maritime Affairs and Fisheries, Director-General.
Disclaimer: Although the Maritime Affairs and Fisheries Directorate General is responsible for the overall production of this publication, the views and conclusions presented in this report reflect the opinion of the author(s) and do not necessarily reflect the opinion of the Commission or its officers.

© European Union, 2017
Catalogue number: KL-02-17-247-EN-N

ISBN: 978-92-79-66607-0
DOI: 10.2771/014805

Reproduction is authorized, provided the source is acknowledged.
Cover image: © EUROFISH

FOR MORE INFORMATION AND COMMENTS:
Directorate-General for Maritime Affairs and Fisheries
B-1049 Brussels
Tel: +32 229-50101
E-mail: contact-us@eumofa.eu

EUMOFA

European Market Observatory for Fisheries and Aquaculture Products

www.eumofa.eu